



NEB-227.ST25.txt
SEQUENCE LISTING

<110> Morgan, Richard
Walsh, Paul

<120> A Novel Type II Restriction Endonuclease, BtgZI, Obtainable From
Bacillus Thermoglucosidasius 36A And A Process For Producing The
Same

<130> NEB-227

<160> 11

<170> PatentIn version 3.2

<210> 1

<211> 39

<212> DNA

<213> Bacillus thermoglucosidasius

<400> 1

cgatgagaat gcgatggttg tggccaaaag caattatcc 39

<210> 2

<211> 26

<212> DNA

<213> unknown

<220>

<223> resulting cleaved DNA of SEQ ID NO:1

<400> 2

cgatgagaat gcgatggttg tggcca 26

<210> 3

<211> 26

<212> DNA

<213> unknown

<220>

<223> primer annealed and extended through BtgZI site and adds extra
(A) base

<400> 3

agaatgcgat gttggtggcc aaaaga 26

<210> 4

<211> 45

<212> DNA

<213> Bacillus thermoglucosidasius

<400> 4

ttctttctgc gcggtcaact ttgtaccaat catacatcgc ctgag 45

<210> 5

<211> 20

<212> DNA

<213> unknown

<220>

<223> resulting cleaved DNA of SEQ ID NO:4

<400> 5

ttctttctgc gcggtcaact

20

<210> 6

<211> 25

<212> DNA

<213> unknown

<220>

<223> resulting cleaved DNA of SEQ ID NO:4

<400> 6

ttgtaccaat catacatcgc ctgag

25

<210> 7

<211> 25

<212> DNA

<213> unknown

<220>

<223> Primer annealed and extended through the BtgZI site

<400> 7

ttctttctgc gcggtcaact ttgta

25

<210> 8

<211> 27

<212> PRT

<213> unknown

<220>

<223> first 27 amino acids

<220>

<221> misc_feature

<222> (23)..(23)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature

<222> (26)..(26)

<223> Xaa can be any naturally occurring amino acid

<400> 8

| | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Tyr | Trp | Leu | Leu | Asp | Tyr | Val | Thr | Gln | Gln | Lys | Val | Arg | Asn | Asp |
| 1 | | | | 5 | | | | | 10 | | | | | 15 | |

| | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ile | Asn | Asn | Leu | Ile | Lys | Xaa | Ile | Leu | Xaa | Ile |
| | | | 20 | | | | | 25 | | |

<210> 9

<211> 16

<212> DNA

<213> unknown

<220>

<223> BtgZI cleaves the phosphodiester bond between the 10th and 11th nucleotides 3' to the recognition sequence in 5'-GCGATG3' strand of the DNA and between the 14th and 15th nucleotides in the complement strand to produce the 4-base extension

<220>

<221> misc_feature

<222> (7)..(16)

<223> n is a, c, g, or t

<400> 9

gcgatgnnnn nnnnnn

16

<210> 10

<211> 30

<212> DNA

<213> unknown

<220>

<223> GPS North Primer

<400> 10

actttattgt catagtttag atctattttg

30

<210> 11

<211> 30

<212> DNA

<213> unknown

<220>

<223> GPS South Primer

<400> 11

ataatcctta aaaactccat ttccaccctt

30